

What is Claimed is:

[CLAIM 1] A film adhesive for sealing a plurality of chip-type devices on a substrate at one time, including an adhesive layer of an adhesive composition which exhibits a minimum value  
5 of a storage modulus of elasticity before curing from  $1 \times 10^3$  to  $5 \times 10^5$  Pa measured by using a dynamic visco-elasticity measuring apparatus while elevating the temperature from  $80^\circ\text{C}$  to  $150^\circ\text{C}$  at an elevating temperature rate of  $2.4^\circ\text{C}/\text{min}$  and at a shearing rate of  $6.28 \text{ rad/sec}$  and a storage modulus of  
10 elasticity after curing from  $5 \times 10^5$  to  $5 \times 10^7$  Pa measured by using a dynamic visco-elasticity measuring apparatus at a sample temperature of  $150^\circ\text{C}$  in a tensile mode at a measuring frequency of  $6.28 \text{ rad/sec}$ .

[CLAIM 2] A film adhesive for sealing according to claim 1,  
15 wherein said adhesive layer includes a plurality of layers, and the outermost layer of said layers, which is in contact with the chip-type devices has a storage modulus of elasticity before curing that is higher than those of the inner layers.

[CLAIM 3] A film adhesive for sealing according to claim 2,  
20 wherein the outermost layer has a storage modulus of elasticity before curing that is higher than that of the innermost layer by at least  $0.2 \times 10^3 \text{ Pa}$ .

[CLAIM 4] A film adhesive for sealing according to claim 1,  
wherein the adhesive composition used for said adhesive layer  
25 is a reactive hot-melt adhesive composition comprising a thermosetting resin component and a thermoplastic resin component.

[CLAIM 5] A film adhesive for sealing according to claim 4,  
wherein the reactive hot-melt adhesive composition comprises a  
30 mixture of a polymer comprising a vinyl group-containing

monomeric unit and a polymer comprising an epoxy group-containing monomeric unit, or a copolymer comprising vinyl group-containing monomeric unit and an epoxy group-containing monomeric unit.

5       [CLAIM 6] A film adhesive for sealing according to claim 4, wherein a fluidity of the reactive hot-melt adhesive composition is controlled by incorporation of a cross-linking structure in the polymer compound.

10       [CLAIM 7] A film adhesive for sealing according to claim 6, wherein the polymer or copolymer of the reactive hot-melt adhesive composition is cross-linked by an electron beam.

15       [CLAIM 8] A film adhesive for sealing according to claim 6, wherein the reactive hot-melt adhesive composition is one in which a precursor comprising a photo-cationic polymerization catalyst is photo-polymerized with the polymer or copolymer.

      [CLAIM 9] A film adhesive for sealing according to claim 8, wherein said photo-polymerization is effected by irradiation of ultraviolet ray.

20       [CLAIM 10] A film adhesive for sealing according to claim 4, wherein the reactive hot-melt adhesive composition further comprises a rosin.

25       [CLAIM 11] A film adhesive for sealing according to claim 4, wherein the adhesive composition comprises from 10 to 95% by mass of a thermosetting resin, from 4 to 80% by mass of a thermoplastic resin, and from 1 to 20% by mass of a rosin.

      [CLAIM 12] A film laminate for sealing having a non-adhesive film on a film adhesive for sealing of any claim 1.

      [CLAIM 13] A method of sealing chip-type devices, comprising the steps of:

30       1) arranging an adhesive layer of a film adhesive for sealing

or a film laminate for sealing of claim 1 to be contacted with the upper surfaces of a plurality of chip-type devices on a substrate having said plurality of chip-type devices; and

2) heating and press-adhering said film adhesive or laminate,  
5 and curing the film adhesive to seal said plurality of chip-type devices at one time.

[CLAIM 14] A sealing method according to claim 13, further comprising a step of singulating after said plurality of chip-type devices have been sealed.

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